

Patent claims

1. A device for coupling a coolant supply to a roller (2),
in particular for continuous casting installations, the
5 roller (2) being mounted in a pillow block (4) by means
of roller bearings (5) via journals (3) and being able to
be supplied with a coolant via an axial roller borehole
(6) guided through the journals (3), having
- a sealing unit (7; 8; 19; 20; 21), which can be fixed
10 to the roller journal (3) to couple it to the roller
borehole (6) in a pressure-tight manner; and
 - a pillow block cover (9), which can be fixed to the
pillow block (4) in order to cover the roller bore (6)
and which has at least one coolant duct (11, 12) being
15 connectable to the coolant supply;
- whereby an insert (14), which supports the sealing unit
(7; 8; 19; 20; 21) in the fitted state, is insertable
into the pillow block cover (9); and
- whereby said insert (14), in order to couple the coolant
20 duct (11, 12) via the sealing unit (7; 8; 19; 20; 21) in
a pressure-tight manner to the roller bore (6), is having
at least one coolant duct (17, 18) which, in the fitted
state, is coupled to the coolant duct (11, 12) in the
pillow block cover (9) and to the sealing unit (7; 8; 19;
25 20; 21).
2. The device as claimed in claim 1, whereby said sealing
unit comprises an elastic sleeve (8), preferably in the
form of a compensator, which is fixed in a flange (7)
30 arranged in the roller journal (3).
3. The device as claimed in claim 2, whereby the sleeve (8)
is removably fixed in the flange (7).

4. The device as claimed in any one of claims 2 or 3, whereby the insert (14) is constructed in such a manner that, when it is removed, it exposes fastening means for
5 removably attaching the sleeve (8) and/or the flange (7) to the roller journal (3).
5. The device as claimed in any one of claims 1 to 4, whereby the insert (14) is having a first coolant duct
10 (17) and a second coolant duct (18) which, in the fitted state, are coupled to first and second coolant ducts (11, 12) in the pillow block cover (9), respectively.
6. The device as claimed in claim 5, whereby the first
15 coolant duct (11) of the pillow block cover (9) is connectable to a coolant supply means and the second coolant duct (12) of the pillow block cover (9) is connectable to a coolant removal means.
- 20 7. The device as claimed in any one of claims 1 to 6, whereby a connecting pipe (24, 25) for connection to a pillow-block footprint (13), which is coupled to the coolant removal means and/or coolant supply means, is insertable into the at least one coolant duct (11, 12) of
25 the pillow block cover (9) in such a manner that the connecting pipe (24, 25) is completely contained by the pillow block cover (9).
8. The device as claimed in any one of claims 1 to 6,
30 whereby the pillow block cover (9) is attached to the pillow block (4) by means of a fastening collar (10).
9. The device as claimed in claim 8, whereby a plug-in

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receptacle (32, 33) for receiving a plug-in pipe (34, 35) for connection to a cooling water supply and/or removal, which is coupled to the coolant removal means and/or coolant supply means, is insertable into the at least one coolant duct (11, 12) of the pillow block cover (9).

10. The device as claimed in any one of the preceding claims, whereby at least one screw stopper (28, 29; 40, 41) which can be screwed in is arranged in the at least one coolant duct (11, 12) of the pillow block cover (9).

11. The device as claimed in any one of the preceding claims, whereby the sealing unit (7; 8; 19; 20; 21) comprises two sealing rings (19; 20), which run on each other, as sealing elements, the first sealing ring (19) being supported by the insert (14) and the second sealing ring (20) being supported by the elastic sleeve (8).

12. The device as claimed in any one of the preceding claims, whereby at least one bore (23) through the pillow block cover (9) is provided for removing cooling medium which has penetrated into the gap between the pillow block cover (9) and pillow block (4), for example due to leakage of the sealing unit (7; 8; 19; 20; 21).

13. The device as claimed in any one of the preceding claims, whereby the pillow block cover (9) preferably has, in the region adjacent to the pillow block (4), an undercut region (19) with a preferably U-shaped cross section for receiving cooling medium which has penetrated into the gap between the pillow block cover (9) and pillow block (4).